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Waterways Experiment  
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# RECNOOTES

NATURAL  
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RESEARCH  
PROGRAM

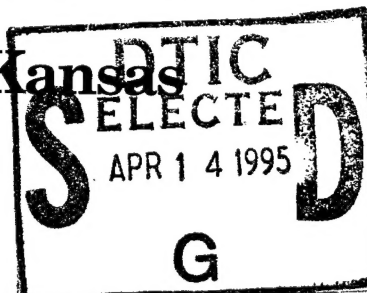
Vol R-95-1

March 1995

## Promotional event at Melvern Lake, Kansas

by

*Ken Wilk, Melvern Lake, USAE District, Kansas City*  
*Christopher White, AScI Corporation*



A free camping weekend was developed and successfully implemented as a promotional event at Melvern Lake, Kansas, on June 24-25, 1994. The purpose of the event was to promote the Corps of Engineers and Melvern Lake, to disperse campground use to the lesser used upstream parks, and to reward the regular campground users.

The possibility of offering such an event had been discussed earlier. In summer 1990, Melvern Lake was closed for 10 days to reduce the chance for

user contact with a potential health hazard (an algae bloom). The bloom resulted in a fish kill. However, even after the lake was reopened for recreation use, visitation stayed much below the historic levels of use, even though the fish population rebounded quickly. To increase visitation to the lake, a weekend of free (no-fee) camping was suggested and considered. However, several policy concerns were raised about providing free services normally associated with a fee.

In 1994, a request for a free camping weekend was approved, as it supported a nationwide Corps recreation study that recommended the use of various fee structures to promote recreation facilities and also complemented a Natural Resources Research Program work unit that is addressing perceptions of user fees.

After receiving permission to conduct the event, Melvern Lake staff requested direct technical assistance from the Natural Resources Technical Support (NRTS) program. NRTS researchers worked with the lake staff to develop objectives and prepare a plan to measure the effectiveness of a free camping weekend event. From this evaluation, Melvern Lake staff received the following recommendations:

- Widely advertise the event to reach as many customers as possible.
- Conduct the event early in the summer, so that newly

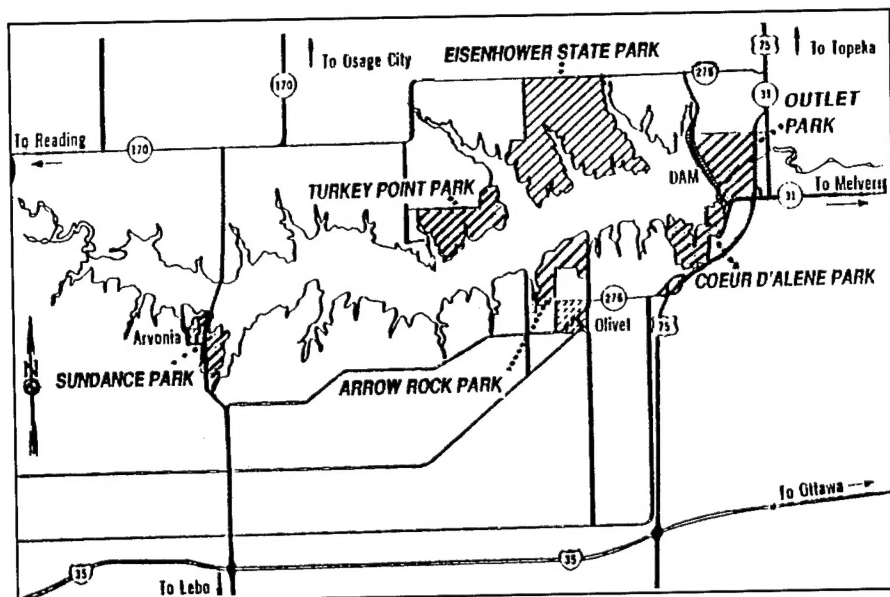


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**Campground parks at Melvern Lake, Kansas**

attracted customers have a chance to return to the lake during the same recreation season.

- Conduct the event on a weekend that does not conflict with other lake events, holiday weekends, or special community events.
- Encourage use of Melvern Lake's upstream parks. (The popular downstream park is near-capacity most weekends.) Emphasize and market the amenities of the upstream campgrounds (for example, the peace and quiet).

An additional recommendation was that Melvern Lake personnel evaluate the reactions of customers who take advantage of the free camping weekend. Two surveys (during and after the event) were designed to help measure the effectiveness of the event.

The during-event survey solicited information needed to understand

- How customers learned about the free camping weekend.

- Which customers would have visited if it were not a free weekend.
- What percentage of customers were first-time users.

The post-event survey, to be conducted at the conclusion of the recreation season, would be used to identify visitor behaviors and perceptions. Example questions would be:

- What did customers enjoy most about the free weekend?
- How satisfied are customers with the facilities?
- What are customers' favorite park features?
- Did customers return to Melvern Lake after the free camping weekend.
- What are suggestions for improving the campgrounds?
- Do customers plan to return next year to Melvern Lake?

## Planning and marketing the event

The weekend of June 24-25, 1994, was selected because it provided ample time for Melvern Lake staff to organize the event; followed the Memorial Day holiday weekend, but preceded the Fourth of July; did not conflict with any other activity or promotion in the area; and coincided with a previously scheduled Corps interpretive living history weekend.

An analysis of campground receipts data from 1991 was performed to determine the residential location of Melvern Lake users. This analysis indicated that approximately 78 percent of Melvern Lake visitors were residents of Kansas (80 of the 105 counties), 22 percent came from other states, and less than 1 percent came from Canada. While this information provided interesting insight and demonstrates the national scope of the Corps' recreation program, it was decided to focus future promotional activities on users who come from Kansas and western Missouri and live within a 100-mile radius of the project.

Marketing efforts for the weekend event were focused on local and nearby areas. About 3 weeks before the event, a press release and flyer were developed and distributed to local media (radio, television, and newspapers), discount department stores with sporting-good sections, sporting goods stores, dealerships for recreational vehicles, boat dealers and marinas, and local merchants. As an incentive to use their services, several of the merchants of Melvern and Melvern Lake offered campers a 10-percent discount on merchandise. For this

purpose, park attendants distributed coupons called "Melvern Bucks" when registering the campers.

## Analysis of survey results

Indicators for measuring the relative success of the event were identified. Based on the NRTS technical response, it was recommended that average campground occupancy rates from the previous five seasons be used. However, campground receipts were available only for the Visitor Use Survey conducted in 1992.

Two items were developed for use during registration: a permit (similar to ENG Form 4457) and a registration sheet. To obtain a representative sample, three summer park rangers surveyed every fifth camper registering at the Arrow Rock, Coeur d'Alene, and Turkey Point campgrounds. A computer database program was used in data collection and analysis, and all promotional materials and surveys were developed on-project using IBM-compatible computers with desktop publishing and data processing capabilities.

Survey analysis indicated that occupancy rates at the three upstream campsites were temporarily higher during the free camping weekend (as shown in the summary table below). However, the survey results also revealed that most of the campers did not know until they arrived that a free weekend event was in progress.

Campground	No. of Sites	Occupancy Rate 1992, %	Actual Occupancy Rate 1993, %	Free Weekend Occupancy Rate 1994, %
Arrow Rock	45	13.5	11.8	53
Coeur d'Alene	60	15.0	14.2	95
Turkey Point	69	16.5	14.8	32 (East Turkey Pt.) 70 (West Turkey Pt.)

10%

## Melvorn Bucks

Use this coupon for a 10% discount on merchandise at the merchants listed on the back of this certificate.

Discounts good only until July 5, 1994.

Thank you for participating in Melvern Lake's Free Camping Weekend.

10%

At the end of the recreation season, a post-event survey was mailed to 41 users who had been surveyed during the free camping weekend. The mail-out included a letter thanking them for using Melvern Lake and enclosed a self-addressed, stamped envelope for returning the questionnaire. The survey solicited information on what users enjoyed about the free weekend; their satisfaction with various facilities (campground, playground, pit privy, marina, swimming beach, visitor center, day-use area, etc.); the number and location of repeat visits to Melvern Lake after the free weekend; and their anticipated plans for visiting the lake in 1995. Space was also provided for any other written comments the users wished to provide.

Of the 41 post-event surveys mailed, 24 were returned (a 59-percent response rate). Many of the respondents (62.5 percent) stated that they visited the campground because it was free or because it was a nice location.

Overall satisfaction with the facilities was in the average range. Facilities most used and appreciated were the shower building and the swimming beach.

Nearly 85 percent of the respondents stated that they planned to return to Melvern Lake next year; the location to which they would return was divided evenly among the campgrounds. One respondent considered \$6 too high a fee for pitching a tent, but stated he would return. Almost all the handwritten comments were positive; they did not fit a specific pattern. These comments addressed late-night noise, shade, parking, jet skis, and comments regarding the park attendants.

## Lessons learned

The following recommendations are based on lessons learned from conducting the free camping weekend.

- Prepare well in advance (at least 6 months). Remember that the best form of advertising is word of mouth. Before distributing flyers and news releases, make personal contacts with advertising sources to explain objectives. Emphasize their role in the event and how it can benefit them as

well as the lake. Later, make follow-up calls to remind them of the upcoming event and to post the promotional materials as the time for the event approaches.

- Market the advertising blitz within 3 weeks of the event. Remember and use the power of the recognition factor.
- Conduct a picnic or campfire program during the free weekend as informal focus groups. Face-to-face conversation is an excellent way to learn customers' attitudes and to obtain suggestions on facility improvements. Record all comments; if someone is particularly concerned, get their address and respond later in writing about how their problem is being addressed. Consider providing refreshments at the informal program, to express your appreciation for taking their time.
- If possible, capitalize on partnerships with lake associations, as these groups can provide invaluable assistance and manpower in promoting and coordinating promotional events.

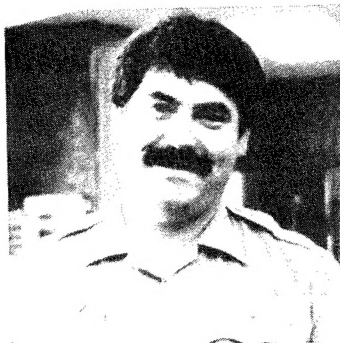
**Headquarters Note:** Special approval was requested from and granted by Headquarters, U.S. Army Corps of Engineers (CECW-ON), for this promotional event.

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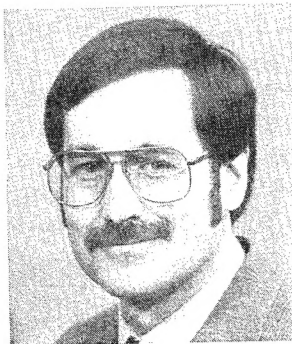
Government services, such as camping stays, may not be given away routinely or indiscriminately, but must be thoroughly considered and justified under Part 327.23(b)(3) of Title 36. Anticipated future increases in revenue would be the expected public policy or interest served by such an event. Requests to hold similar events should be forwarded to HQUSACE, CECW-ON, enough in advance to ensure that timely approval can be provided. No such event may be conducted without specific HQUSACE approval.

## Bibliography

- Howard, D. R. 1980. *Financing, Managing, and Marketing Recreation and Park Resources*, W. C. Brown Publishers, Dubuque, IA.
- Nagle, T. T. 1987. *The Strategy and Tactics of Pricing*, Prentice-Hall, Englewood Cliffs, NJ.
- Rust, R. T., and Oliver, R. L., eds. 1992. *Service Quality—New Directions in Theory and Practice*, Sage Publications, Thousand Oaks, CA.



**Ken Wilk** is a Park Ranger at Melvern Lake in the Corps' Kansas City District. A Corps team member since 1980, Ken previously served with the National Park Service. At Melvern Lake, Ken oversees the recreation program, which encompasses recreation fees, visitation, interpretation, and visitor assistance.



**Christopher White** completed this effort while a Research Associate with Texas A&M University working in the Resource Analysis Branch, Environmental Laboratory (EL), Waterways Experiment Station. Presently, he is employed as a Research Scientist, AScl Corporation, under contract to the Fate and Effects Branch, EL. His interests cover the spectrum of attitudes and motivations related to natural resource issues. Chris holds a Bachelor of Science degree in Natural Resources Management and a Master's degree in Forestry from the University of Missouri. He is completing a PhD in Recreation Resource Development from Texas A&M.



# NRRP research to address field problems

Do you have a natural resources or recreation planning, operational, or management problem that requires a new look, perhaps using short- or long-term research to find a solution? If so, let us know so that the resources of the Natural Resources Research Program can be targeted toward real problems—your problems. Explain the situation or problem in writing (no more than 2 pages) and send it, along with your name, address, and telephone number, to:

USAE Waterways Experiment Station  
ATTN: CEWES-EL-L/Tillman  
3909 Halls Ferry Road  
Vicksburg, MS 39180-6199  
[telephone: (601) 634-4201]  
[fax: (601) 634-3528]

All submissions will be entered into a process that allows them to be considered as NRRP research work units. If your submission qualifies as a potential NRRP work unit, it will be evaluated by the NRRP Field Review

Group at the NRRP Review that is held each spring. After the program review, an annual program containing existing and proposed NRRP work units is recommended to the Directorate of Research and Development for funding.

When should you submit research ideas? Anytime. But do it now, while the idea is fresh in your mind!

## NRRP Review scheduled

The 20th Annual Natural Resources Research Program Review will be held at Waterways Experiment Station on March 29-30, 1995. At this meeting, the fiscal year 1996 program will be discussed and evaluated

by the NRRP Field Review Group members. Included will be presentations on the accomplishments of existing work units and proposals for new NRRP work units.

Participation in the NRRP Review is open to all Corps employees. For more information, contact Russell Tillman, CEWES-EP-L, at (601) 634-4201 (Internet: tillman@elmsg.wes.army.mil).

## Calendar of natural resource-related events

- |                        |   |
|------------------------|---|
| March 24-29, 1995      | <b>North American Wildlife and Natural Resources Conference</b> , Minneapolis, MN, (202) 371-1808   |
| March 29-30, 1995      | <b>Natural Resources Research Program Review</b> , USAEWES, Vicksburg, MS, POC: Russell Tillman, (601) 634-4201   |
| March 30-April 1, 1995 | <b>Fourth Annual Southeastern Lakes Management Conference</b> , North American Lake Management Society, Radisson Plaza Hotel, Charlotte, NC, POC: Gary Springston, (615) 751-7336                                       |
| April 17-21, 1995      | <b>Eighth Conference on Research and Resource Management in Parks and on Public Lands</b> , Marriott Hotel, Portland, OR, POC: George Wright Society, (906) 487-9722  |
| May 14-17, 1995        | <b>Fourth International Outdoor Recreation and Tourism Trends Symposium and 1995 National Recreation Resource Planning Conference</b> , St. Paul, MN, POC: Kelly Fisher, 800-367-5363, or Internet: kfisher@mes.umn.edu |
| July 18-22, 1995       | <b>Visitor Studies Association, 8th Annual Conference</b> , Minnesota History Center, St. Paul, MN, POC: Stephen Carlson, (612) 626-1259  |

# NRRP strategy document available

A task force has recently completed a report that provides strategic planning for the future of the Natural Resources Research Program. Since its formation in 1992, the NRRP Strategy Task Force has worked to

- Identify major trends in the recreation and natural resource environment that have the potential for the greatest impact on Corps projects.
- Determine focus areas for research, and develop agency insight and available technologies to accommodate the identified trends.
- Identify effective avenues for sharing research products and information within the Corps, as well as within the research community at large (particularly among Federal land management agencies), to maximize research benefits.

The task force developed the NRRP strategy by making a broad assessment of the Corps' natural resources and recreation program and emerging issues. Based on this assessment, the task force identified eight areas of research that should be targeted by NRRP for maximum program effectiveness. These "Research Focus Areas" are:

- Identifying and Characterizing the Corps Role in Recreation and Natural Resource Management

- Natural Resources/Resource Systems
- Social Implications/Trends
- Economic Effects
- Environmental Considerations
- Management Systems/Techniques
- Physical Facilities/Design
- Policy Effectiveness

Of these research focus areas, the first three were identified by the task force as of immediate, short-term priority for NRRP research. Other recommendations were as follows:

- New NRRP work units should be established based on the findings of the Strategy Task Force final report.
- A model technology transfer plan should be prepared to serve as a guide for developing technology transfer plans for each NRRP work unit. In addition, a working group should be established to investigate opportunities for external technology transfer.
- Waterways Experiment Station should develop a 5-year NRRP research and development plan in accordance with the findings of this strategy.

The Strategy Task Force also recommended that the strategy be revisited and updated at periodic

intervals to ensure that it remains current and viable.

Members of the Strategy Task Force included

- **A. J. Anderson**, NRRP Manager, Waterways Experiment Station (WES) [served as Task Force Chair until his retirement in October 1992; subsequently, Judith Rice, Corps Headquarters (HQUSACE), assumed duties of Chair]
- **Lewis Decell**, Manager, Environmental Resources Research and Assistance Programs, WES
- **Donald Dunwoody**, Chief, Natural Resources Management Branch, Missouri River Division
- **Michael Ensich**, Chief, Natural Resources Management Branch, Southwestern Division
- **Judith Rice**, Outdoor Recreation Planner, Natural Resources Management Branch, HQUSACE
- **Jim Shiner**, Project Manager, John W. Flannagan Dam and Reservoir, Huntington District
- **Susan Whittington**, Chief, Natural Resources Management Division, South Atlantic Division

To obtain a copy of the NRRP Strategy, contact Russ Tillman (CEWES-EP-L) at (601) 634-4201.

# National survey shows link between recreation and happiness

People who recreate on a regular basis, or for whom recreation was important while growing up, are more likely than all others to be completely satisfied with their lives, according to a Recreation Roundtable/Roper Starch worldwide survey. The Recreation Roundtable is a group of 25 leading recreational executives that seeks to promote high-quality and readily available recreation opportunities for all Americans.

The survey results indicate that those who recreate most often are most likely to be completely satisfied with their choice of career, friends, and their perceived success in life. However, the "Outdoor Recreation in America" report suggests that the connection between recreation and family may be at risk. Comparisons with a 1986 study show that the proportion of the public who say recreation was very important while growing up is down 7 points, to 25 percent.

The door-to-door survey of 2,000 adults was conducted April 15-22, 1994. In addition to linking participation in outdoor recreation with quality of life, the study also considered motivations for and barriers to recreation, as well as satisfaction levels with recreation opportunities. A report documenting the study was released to Congress in October 1994.

The survey indicated that two-thirds of Americans participate in outdoor recreation every year, and half do so at least every month.

"The conclusions Roper has drawn from its survey are very

encouraging," said Francis Pandolfi, Vice-Chairman of the Recreation Roundtable and President of Times Mirror Magazines. "We now know that the American public associates recreation with three great issues of the 1990's: family, the environment and health. Second, we know that people who participate in recreation often, and those who were raised in families where recreation was an important element, are happier with their lives than the public at large."

Reasons for participating in outdoor recreation reflect a commitment to family life and personal fitness. According to survey participants, the key recreational motivator is "to have fun," followed by relaxation, health and exercise, family togetherness, and stress reduction. Respondents reported their top recreational activities during the last year as pleasure driving, swimming, fishing, camping, and bicycling.

According to the survey results, one in three Americans took an outdoor recreation vacation last year. Water destinations such as oceans, lakes, and rivers drew 40 percent of the vacationing public. Federal and state parks accounted for another 38 percent of recreation vacation spots. Over 75 percent stated they believe the availability of local parks is either "excellent" or "good." However, dissatisfaction was reported with regard to the amount of information available during an outdoor recreation experience. The majority (7 in 10) feel that displays and other programs teaching about history and resources

are important. Yet only 12 percent are satisfied with the interpretive resources currently available.

Gender differences were revealed in the respondents' choice of favorite recreational activity. Fishing was the overwhelming favorite of men, and swimming was the first choice of women. However, men and women share enthusiasm for pleasure driving and camping. Regional differences in recreational patterns were also noted.

Information concerning barriers or obstacles to recreation revealed that "time constraints" was the major factor, reported by approximately one third of the participants. The idea that only the wealthy can afford to recreate was rejected by three quarters of the public. One fifth planned to become more active in recreational activities next year, while 6 percent believed they would be less active.

In his executive summary of the report, Mr. Pandolfi states, "The data clearly demonstrates that providing appropriate opportunities for high-quality outdoor recreation contributes importantly to other societal goals, including a sound environment, healthy rural economies, strengthened families and better personal health."

[Note: Copies of the study summary can be purchased through the study sponsor, the Recreation Roundtable, 1331 Pennsylvania Avenue, NW, Suite 726, Washington, DC 20004; telephone (202) 662-7420; fax (202) 662-7424.]

# Back belts: not recommended

*[Article reprinted from USACHPPM TODAY, a U.S. Army Center for Health Promotion and Preventive Medicine News Bulletin]*

The Office of The Surgeon General has issued a policy memorandum against the blanket use of back belts. Studies have shown that back belts do not reduce the risk of back injury. In some cases, back belts may actually increase worker risk for back injuries or cardiovascular problems.

Back injuries are one of the most costly occupational injuries today. The average cost of a lost-time back injury is over \$24,000, and the average cost of a back injury requiring surgery is \$180,000. As the number of back injuries and costs rise, employers are searching for cost-effective solutions. Back belt manufacturers and vendors aggressively promote them as a preventive measure for back injuries. Back belts are thought to increase intra-abdominal pressure (IAP), which some believe decreases compressive forces on the lumbar spine during lifting. Advocates of the back belt also believe it serves as a reminder to workers to lift properly and helps to improve morale. Most research findings do not support the use of back belts. The relationship between IAP and spine compressive forces has been challenged biomechanically. Also, increasing IAP can cause a significant in-

crease in blood pressure with potentially serious cardiovascular effects, especially in workers with latent coronary heart disease.

Studies show that back belts do not necessarily reduce spinal muscle activity and do not significantly reduce the rate of back injuries or lost work days. Workers often report perceptions of improved trunk stability with the belt, but this can lead to overconfidence, with the worker lifting more weight or lifting at a faster rate than is advisable. In fact, one study demonstrated a higher rate of injury for workers with belts than without belts. Also, costs associated with injuries occurring with the belt have been significantly higher than the costs associated with injuries without belts.

If a back belt is worn, both a significant increase in the risk and severity of injuries and an increase in lost work days occur when it is no longer worn. This may be due to muscle atrophy and weakening of associated spinal structures due to dependence on the belt support. Overconfidence and changes in lifting techniques are other potential reasons for the increased risk. Also, workers often do not re-

ceive proper training in the use and wearing of back belts.

The National Institute for Occupational Safety and Health has officially taken a position against back belts, and the Occupational Safety and Health Administration [OSHA] does not consider back belts a solution to ergonomic problems in the workplace. Furthermore, OSHA does not accept back belts as personal protective equipment. A back injury prevention program, which includes reducing the risk assumed by the worker, and proper worker training is the best way to prevent and reduce worker back injuries.

Ergonomic work-station analyses and appropriate engineering and administrative controls can reduce the risks assumed by workers. Properly controlling the amount of time spent performing lifts and the weight lifted will minimize worker risk. A worker training program should address proper lifting techniques, proper posture, low back flexibility exercises, stretching, and low back strengthening exercises. POCs: MAJ Mary S. Lopez/Mr. John Pentikis, (410) 671-3928, or 1-800-222-9698.



# Center for Cultural Site Preservation Technology

The Center for Cultural Site Preservation Technology has been established at the U.S. Army Engineer Waterways Experiment Station (WES) to consolidate the administrative, technological, and scientific and engineering research skills available at WES and other Corps laboratories in support of cultural resources site protection and preservation work, training, and interagency coordination. The Center also serves as an information clearinghouse and a source for interdisciplinary technical expertise. Direct technical assistance is available through the Center.

Expertise in a variety of disciplines (archeology, geology, geomorphology, geography, biology, mineralogy and materials analysis, coastal processes, geophysics, and remote sensing) is available through the Center. The Center facilitates access to scientists and engineers at WES and other Corps laboratories, primarily the Construction Engineering Research Laboratories at Champaign, Illinois, and the Cold Re-



*Prehistoric site stabilization at Greer Mound, Arkansas*

gions Research and Engineering Laboratory at Hanover, New Hampshire.

Dr. Fred Briuer of WES is Director of the Center. Inquiries should be directed to

Director, Center for Cultural Site Preservation Technology

USAE Waterways Experiment Station  
ATTN: CEWES-EN-R  
3909 Halls Ferry Road  
Vicksburg, MS 39180-6199  
Phone (601) 634-4204  
Fax (601) 634-3726

## Have you used the NRRP/NRTS BBS?

The Natural Resources Research Program/Natural Resources Technical Support Program's bulletin board service (NRRP/NRTS BBS) is available for all Corps employees involved in recreation and natural resources activities. Open 24 hours a day, 7 days a week, the service gives NRRP and

NRTS users better access to and understanding of these programs and their resulting products. All that is required to use the NRRP/NRTS BBS is a computer, communication software, telephone line, and a Hayes-compatible modem.

The telephone number for the NRRP/NRTS BBS is (601) 634-

2683. The following settings are needed to configure your communication software to access the NRRP/NRTS BBS:

- Baud rate: 300 to 54,700 bps
- Parity: none
- Stop bits: 1
- Video mode: ANSI

# NRRRP

NATURAL RESOURCES  
RESEARCH PROGRAM

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## NATURAL RESOURCES RESEARCH PROGRAM

This bulletin is published in accordance with AR 25-30. It has been prepared and distributed as one of the information dissemination functions of the Environmental Laboratory of the Waterways Experiment Station. It is primarily intended to be a forum whereby information pertaining to and resulting from the Corps of Engineers' nationwide Natural Resources Research Program can be rapidly and widely disseminated to Headquarters, and Division, District, and project offices as well as to other Federal agencies concerned with outdoor recreation. Local reproduction is authorized to satisfy additional requirements. Contributions of notes, news, reviews, or any other types of information are solicited from all sources and will be considered for publication so long as they are relevant to the theme of the Natural Resources Research Program, i.e., to improve the effectiveness and efficiency of the Corps in managing the natural resources while providing recreation opportunities at its water resources development projects. This bulletin will be issued on an irregular basis as dictated by the quantity and importance of information to be disseminated. The contents of this bulletin are not to be used for advertising, publication, or promotional purposes. Citation of trade names does not constitute an official endorsement or approval of the use of such commercial products. Communications are welcomed and should be addressed to the Environmental Laboratory, ATTN: J. L. Decell, U.S. Army Engineer Waterways Experiment Station (CEWES-EP-L), 3909 Halls Ferry Road, Vicksburg, MS 39180-6199, or call AC (601) 634-3494.

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Director

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